PERINATAL LESSONS FROM THE PAST

Adolphe Pinard (1844–1934) of Paris and intrauterine paediatric care

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Pinard was a pioneer of modern perinatal care. His provision of social care to deprived pregnant women progressed to a recognition of the value of medical care of mother and baby before as well as after birth. The creation of antenatal departments and wards in maternity hospitals followed. He also established abdominal obstetric palpation on sound principles.

dolphe Pinard was the eldest of five sons born to peasant farmers in the town of Mery-sur-Seine in the Champagne region of France. As a lad he was influenced to train in medicine by a local country doctor, Dr Bacquias. In June 1862 at the age of 18 he left for Paris. There he was helped by a cousin who, as a saddler, was responsible for supplying harnesses for the horses of the Faculté de Médecine, and also by a pharmacist in whose house he had obtained lodgings. At the medical school he got to know an anatomy aide, Farabeuf, who recognised his talent and took him under his wing, first becoming his teacher and later his collaborator in research on pelvic deformity and symphysiotomy.

On qualifying as a doctor, Pinard joined the Faculté de Médecine, and in 1871 at the age of 27 became an intern to Professor Stéphane Tarnier, the grand master of French obstetrics. His progress was rapid. Nominated agrégé in 1878 at the age of 34, he became accoucheur des hôpitaux in 1882, and finally, on the retirement of Pajot in 1890, was appointed Professor of Clinical Obstetrics in the Faculté at the age of 45 (fig 1). In 1892 he was elected a member of the Académie de Médecine. Although eventually retiring from his distinguished leadership of the Clinique Baudelocque in 1914, he remained active right up to his death in 1934 at the age of 90. 1-4

In 1874 Pinard published his thesis on congenital malformations of the pelvis, developing his own methods of measurement using a pelvimeter and a pelvigraph. In 1873 at Tarnier's suggestion he had started to study in depth the neglected field of abdominal palpation, and in 1878 published his observations in *A treatise on abdominal palpation as applied to obstetrics, and version by external manipulation.*⁵ In this slim classic text which was translated into English and Spanish, Pinard laid down clear guidelines for abdominal palpation of the fetus, stressing the need for warm hands and the importance of an empty bladder and rectum. He wrote: " ... I

have endeavoured to simplify the method, to render it rational and make it rest on the exact knowledge of the various attitudes the fetus may adopt during the last month of pregnancy; i.e. the accommodation ... attentive observation has shown that at the time of labour only certain parts of the fetus can present at the superior strait, and not any part as was thought for so long a time ..."

Besides determining the orientation of the fetus, Pinard emphasised the value of external cephalic version to correct breech presentation, writing: " ... apply one hand over the foetal head, and the other over the breech, and by gentle and sustained pressure exerted inversely over one and the other extremity, turn the two poles of the foetus ... the pressure made over the breech is more efficient than that made over the head, in as much as it is more directly transmitted to the trunk" (fig 2). At a time when the rachitic flat pelvis was a common cause of brim disproportion, Pinard also advocated using the fetal head to assess engagement in the pelvic brim in order to evaluate the cephalopelvic relationship. As was said later: "The fetal head is the best pelvimeter".

Until safe caesarean delivery became possible early in the 20th century, it was not uncommon for fetal destruction to be required to save the mother's life. Alternatively, labour might be



Figure 1 Adolphe Pinard (1844–1934).

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Figure 2 External cephalic version by Pinard.⁵

induced prematurely; and difficult forceps extractions were also often required. Between 1891 and 1897, Pinard explored the operation of symphysiotomy with considerable success, showing that it was possible by this method to enlarge the pelvis by 2 cm and that later pubic reunion with a normal gait was the rule rather than the exception. He was also an early advocate of "trial of labour" and, with Varnier, was the first in 1897 to attempt x ray pelvimetry.

Pinard's research and teaching was always of practical application rather than theoretical, as had often been the case in the past. As he commented in 1881: "A number of students have become doctors without ever examining a woman or attending a birth. That is monstrous, but a fact". Besides the matters discussed above, he wrote on the control of antepartum and postpartum haemorrhage, on severe hyperemesis, on retroversion of the gravid uterus, and on tubal pregnancy. In 1895 he devised the simple obstetric stethoscope to which his name is still attached. But by far his most important contribution to midwifery and obstetrics was his advocacy of the prenatal care of mother and fetus. With his teacher, Tarnier, and his colleague Pierre Budin, he shares credit for the introduction of modern perinatal care.

In May 1891 Pinard gave a lecture at the Sorbonne on the importance of assisting destitute pregnant women and made a plea for the provision of shelters and nurseries. At the time it was customary only to provide medical care during and after delivery. The following year with the help of a French midwife, Madame Bequet, he opened a hostel (the Refuge de L'Avenue du Maine) for pregnant women who were without means. Deliveries were then conducted in the Baudelocque hospital. By 1895 he was able to show that the mothers who had been rested and looked after in the Refuge were more likely to deliver healthier and heavier babies at term. This new antenatal approach also provided the opportunity for checking mothers for disproportion, correcting malpresentations, detecting renal problems, etc, and attempting to ensure the normal development of the fetus-what Pinard termed

"la puericulture intrautérine". This in turn was followed by "extrauterine puericulture", ensuring maternal and infant hygiene and insisting on non-separation of mother and baby and on breast feeding. Gradually, other hostels opened, and then antenatal departments and wards in maternity hospitals. In the United Kingdom, the first similar type of hostel was opened by Dr Haig Ferguson in Edinburgh in 1899 and the first "pre-maternity ward" by Ballantyne in 1902, also in Edinburgh.6 Thus what began as a social project developed over time into the routine antenatal care of all pregnant women. Pinard himself never stopped pushing this project, at the same time begging the authorities for the creation of a teaching centre for paediatric care that "would have as its object to complete the education of future physicians in hygiene and preventive medicine for babies and to form a corps of especially competent visiting nurses capable of becoming the best colleagues of these specialists". In January 1920 such an institution was eventually founded with funds raised by public subscription and by an endowment from the American Red Cross: "The School of Paediatric Care in the Faculté de Medécine". Professor Pinard was entrusted with its direction. In 1921 the Board of Higher Education for Public Instruction in France authorised the school to grant a university diploma to physicians and nurses who had taken its courses. Within 10 years new enlarged quarters were required, and in 1933 a splendid new institute was opened by Pinard on the Boulevard Brune. The government, as a sign of its gratitude, presented him with the insignia of an officer of the Legion of Honour.

The citizens of Pinard's home town, Méry-sur-Seine, elected him mayor, and he oversaw many improvements in sanitation, maintenance and beautification of buildings, and the provision of schools and a reading club. In 1924 he was elected to Parliament at the Palais Bourbon. In spite of a distaste for the manners of his fellow parliamentarians, he was prepared to further his fight to protect pregnant women and to improve paediatric care.

When a young student, Pinard had experienced the disasters of the Franco-Prussian war in 1870. He loved his country, and in 1914, although now retired aged 68, put on his blue army uniform, and, at its end five years later, attended the victory march in Paris. Sadly during the war he had lost his dearly loved son. What more can be said of this remarkable man? He has been described as immensely hard working and as a scientist indefatigable in his search for the truth. He was generous and devoted to the sick. As a teacher he inspired his audience by the clarity and enthusiasm of his lectures. His calling card read: "Dr Pinard, puericulteur". The term accurately commemorates this great figure of French medicine.

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